

**PATENT**  
RAP04 P-571A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group : 3651  
Examiner : J. Shapiro  
Applicant : Douglas E. Olson, Gerald A. Brouwer,  
Hans J. Klein, Steven A. Axelrod, Charles R. DeVries,  
Keith E. Schultz and Bruce A. Young  
Serial No. : 09/600,204  
Filing Date : July 12, 2000  
For : DISPATCH SYSTEM FOR CONTAINERS OF  
SORTED MAIL AND METHOD THEREFOR

Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  
BEFORE MAILING DATE OF EITHER A PROPER FINAL ACTION OR  
NOTICE OF ALLOWANCE (37 CFR 1.97(c))**

The Information Disclosure Statement transmitted herewith is being filed after three months of the filing date of this national application and after the mailing date of the first Office Action on the merits, whichever occurred last.

The fee set forth under 37 CFR 1.17(p) for submission of an Information Disclosure Statement under § 1.97(c) (\$180) is enclosed. Please charge any deficiencies in fees to Account No. 22-0190. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

DOUGLAS E. OLSON ET AL.

02/14/2002 SMINASS1 00000016 09600204

01 FC:126

180.00 DP

By: Van Dyke, Gardner, Linn  
& Burkhardt, LLP

Dated: January 31, 2002.

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FSB:djr  
RAP04 P-571A



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& Burkhart, LLP

Dated: January 31, 2002.

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For : DISPATCH SYSTEM FOR CONTAINERS OF  
SORTED MAIL AND METHOD THEREFOR

Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

**INFORMATION DISCLOSURE STATEMENT**

In accordance with 37 CFR 1.51, 1.56, 1.97 and 1.98, Applicants submit herewith patents, publications or other information listed on attached Form PTO-1449 for consideration by the Examiner in connection with examination of the present application.

This Information Disclosure Statement is not intended to constitute an admission that any patent, publication or other information referred to herein is "prior art" for this invention unless specifically designated as such.

Under 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists.


The Examiner's attention is directed to the United States patents listed on the attached Form PTO-1449.

Respectfully submitted,

DOUGLAS E. OLSON ET AL.

By: Van Dyke, Gardner, Linn  
& Burkhart, LLP

Dated: January 31, 2002.

  
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RAP04 P-571A



**PATENT**  
RAP04 P-571A

13651

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Filing Date : July 12, 2000  
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SORTED MAIL AND METHOD THEREFOR

Commissioner for Patents  
Washington, D.C. 20231

**RECEIVED**  
FEB 19 2002  
**GROUP 3600**

Dear Sir:

**CERTIFICATE OF MAILING**

I hereby certify that this paper along with the attached INFORMATION DISCLOSURE STATEMENT (one page); TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT BEFORE MAILING DATE OF EITHER A PROPER FINAL ACTION OR NOTICE OF ALLOWANCE (37 CFR 1.97(c)) (one page, in duplicate); FORM PTO-1449 (one sheet); copies of information listed on Form PTO-1449 (one book); check in the amount of \$180; and return postal card are being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Commissioner for Patents  
Washington, D.C. 20231

on January 31, 2002.

Donna J. Raaymakers  
Donna J. Raaymakers  
Van Dyke, Gardner, Linn & Burkhardt, LLP  
2851 Charlevoix Drive, S.E., Suite 207  
Post Office Box 888695  
Grand Rapids, Michigan 49588-8695  
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FSB:djr  
RAP04 P-571A  
Enc.

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 72-530 M/Mq.		FOR FURTHER ACTION		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP99/00317	International filing date (day/month/year) 21/01/1999	Priority date (day/month/year) 21/01/1998		
International Patent Classification (IPC) or national classification and IPC B07C3/08				
Applicant MANNESMANN AG et al.				

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 6 sheets, including this cover sheet.

- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 5 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand  07/07/1999	Date of completion of this report  28.04.00
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Koob, M  Telephone No. +49 89 2399 2080 

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP99/00317

**I. Basis of the report**

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

**Description, pages:**

1-12 as originally filed

**Claims, No.:**

1-31 as received on 15/02/2000 with letter of 15/02/2000

**Drawings, sheets:**

1/17-17/17 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP99/00317

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims	1-31
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-31
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-31
	No:	Claims	

**2. Citations and explanations**

**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

Reference is made to the following documents:

D1: US-A-3 214 003  
D2: WO 97 36523 A  
D3: EP-A-0 575 109  
D4: US-A-5 414 974

**V. Reasoned statement**

1. The subject-matter of **claim 1** meets the requirements of Article 33(2)+(3) PCT in respect to novelty and inventive step.
  - 1.1 The document **D3** discloses an apparatus according to the preamble of **claim 1** for dispatching trays of sorted mail to dispatch cages 34 (movable containers) each associated with spurs of a sorting and caging station 33 (see **D3**, figure 1, column 7, lines 19-25 and column 5, lines 47-53).
  - 1.2 The subject-matter of **claim 1** differs from **D3** by providing a transporting mechanism in order to convey the containers from the spur to the associated movable cart.
  - 1.3 The technical problem can be seen in the need to lock out the entire system in order to replace a full cart (see page 2, 4. paragraph and page 3, 2. paragraph) and herewith reducing the system throughput.
  - 1.4 The apparatus disclosed in **D3** comprises an integrated sortation and caging station 33. The other documents cited in the search report do not contain the teaching to separate the following two steps, namely sortation of randomly arranged containers of sorted mail to spurs and transport of the containers to the associated cart.



The cartridge transfer and handling robot 30 of **D2** moves mail cartridges 25 between a buffer shelf 40, a docking station 55 and the output compartments 20 of a sorter 15 (see **D2** figure 1 and page 40, lines 20-24). The output compartments 20 are similar to the spurs and the buffer shelf 40 is seen as being equivalent to the carts. The only function of the buffer shelf 40 disclosed is to temporarily receive cartridges 25 (see **D2** page 18, line 5) without there being any relation between the output compartments 20 and distinct compartments of the buffer shelf 40. It seems that at the end of the sortation the buffer shelf 40 contains cartridges 25 of sorted mail (see **D2** page 40, lines 23) and the buffer shelves 40 need to be replaced requiring a stop of the robot 30. Therefore the disclosure of **D2** is seen as being a transport mechanism for generally transporting containers of sorted mail. **D2** does not contain a teaching that would lead the man skilled in the art to insert the transport mechanism of **D2** between the spurs and their associated carts of **D3** to increase the throughput of the dispatch system.

The document **D1** does not disclose any cart. Therefore it can not provide a teaching to insert a transport mechanism between the spur and its associated cart of **D3**.

In the document **D4** the transport conveyor 238 is seen as spur with its associated cart 94 (see **D4**, figure 8 and column 14, lines 18-30). Therefore no further transport mechanism is disclosed which could provide a relevant teaching.

2. **Claims 2-25** are preferred embodiments of **claim 1** and meet as such the requirements of the PCT with respect to novelty and inventive step.

3. The subject-matter of **claim 26** is new and inventive according to Article 33(2)+(3) PCT.

3.1 The document **D3** discloses a method where randomly ordered containers of sorted mail (see **D3** column 4, lines 49-50) are sorted to associated hand-operated carts (see **D3** column 7, lines 20-25).

3.2 The subject-matter of **claim 26** differs from **D3** in the intermediate step of first sorting the containers to particular locations and then automatically transporting the containers to the associated cart.

3.3 For a detailed argumentation reference is made to points 1.3 and 1.4.

The document **D1** does provide a particular location (see **D1**, figure 8, elements 30-33) but does not disclose any cart. Therefore no hint is given to insert the method step of first sorting to a particular location according to **D1** in the method of **D3**. **D2** and **D4** do not disclose a suitable particular location according to the present invention.

4. **Claims 27-31** are preferred embodiments of **claim 26** and meet as such the requirements of the PCT with respect to novelty and inventive step.

#### **VIII. Certain observations**

The term "one of this carts (52)" in **claim 1** is in contradiction to Article 6 PCT as it is unclear from the wording whether it is one single cart or a plurality of carts which are juxtaposed with each spur. In the description nothing else than one single cart being juxtaposed with each spur is disclosed (see page 6, 2. paragraph "the associated cart 52").

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>72 530 M/Mq.</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP 99/ 00317</b>	International filing date (day/month/year) <b>21/01/1999</b>	(Earliest) Priority Date (day/month/year) <b>21/01/1998</b>
Applicant <b>MANNESMANN AG et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 03 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

4



None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 99/00317

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 B07C3/08 B07C3/00 B65G47/50

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 B07C B65G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 575 109 A (PITNEY BOWES) 22 December 1993 see column 4, line 23 - column 5, line 53 see column 7, line 24 - column 7, line 25; figures ---	1-30
A	US 5 414 974 A (VAN DE VEN JOHN ET AL) 16 May 1995 see column 11, line 19 - column 12, line 45 see column 13, line 66 - column 14, line 29; figures ---	1-30
A	WO 97 36523 A (ELECTROCOM AUTOMATION LP) 9 October 1997 see the whole document ---	1-30
-/--		

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

20 May 1999

Date of mailing of the international search report

28/05/1999

Name and mailing address of the ISA

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Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Ostyn, T

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 99/00317

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 27 53 676 A (SCHIERHOLZ KG LOUIS) 7 June 1979 see the whole document ---	1,26
A	US 3 214 003 A (WILSON) 26 October 1965 see the whole document -----	1,26

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 99/00317

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0575109	A	22-12-1993	US 5446667 A CA 2097959 A DE 69307402 D DE 69307402 T	29-08-1995 19-12-1993 27-02-1997 15-05-1997
US 5414974	A	16-05-1995	AU 675861 B AU 7026694 A CA 2117500 A	20-02-1997 02-03-1995 18-02-1995
WO 9736523	A	09-10-1997	AU 2447797 A CA 2250532 A	22-10-1997 09-10-1997
DE 2753676	A	07-06-1979	NONE	
US 3214003	A	26-10-1965	NONE	

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 99/00317

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 B07C3/08 B07C3/00 B65G47/50

According to International Patent Classification (IPC) or to both national classification and IPC

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Minimum documentation searched (classification system followed by classification symbols)

IPC 6 B07C B65G

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\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

20 May 1999

Date of mailing of the international search report

28/05/1999

Name and mailing address of the ISA

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Fax: (+31-70) 340-3016

Authorized officer

Ostyn, T

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 99/00317

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	US 3 214 003 A (WILSON) 26 October 1965 see the whole document -----	1,26



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Information on patent family members

International Application No

PCT/EP 99/00317

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EP 0575109 A	22-12-1993	US 5446667 A CA 2097959 A DE 69307402 D DE 69307402 T	29-08-1995 19-12-1993 27-02-1997 15-05-1997
US 5414974 A	16-05-1995	AU 675861 B AU 7026694 A CA 2117500 A	20-02-1997 02-03-1995 18-02-1995
WO 9736523 A	09-10-1997	AU 2447797 A CA 2250532 A	22-10-1997 09-10-1997
DE 2753676 A	07-06-1979	NONE	
US 3214003 A	26-10-1965	NONE	

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US97/05823

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :A47F 7/00

US CL :211/51; 312/71; 209/900

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 211/51, 59.3, 10; 312/71, 50; 209/900; 232/17, 18, 1D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2,043,560 A (SAVAGE) 09 June 1936 (09/06/36), see entire document.	1-11
A	US 3,214,227 A (FILIPOWICZ) 26 October 1965 (26/10/65), see entire document.	1-11
A	US 4,699,277 A (BAXTER) 13 October 1987 (13/10/87), see entire document.	1-11
A	US 4,778,062 A (PAVIE et al) 18 October 1988 (18/10/88), see entire document.	1-11
A	US 5,470,427 A (MIKEL et al) 28 November 1995 (28/11/95), see entire document.	1-11
A	US 3,127,225 A (OEHRLEIN) 31 March 1964 (31/03/64), see entire document.	1-11

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	"T" later documents published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"A" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

01 AUGUST 1997

Date of mailing of the international search report

20 AUG 1997

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
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Washington, D.C. 20231

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Authorized officer:

ROBERT W. GIBSON, JR.

Telephone No. (703) 308-2168

Form PCT/ISA/210 (second sheet)(July 1992)\*